AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1.   (Previously Presented) A system for cloning input/output (I/O) devices connected to a network of an industrial control system, comprising:
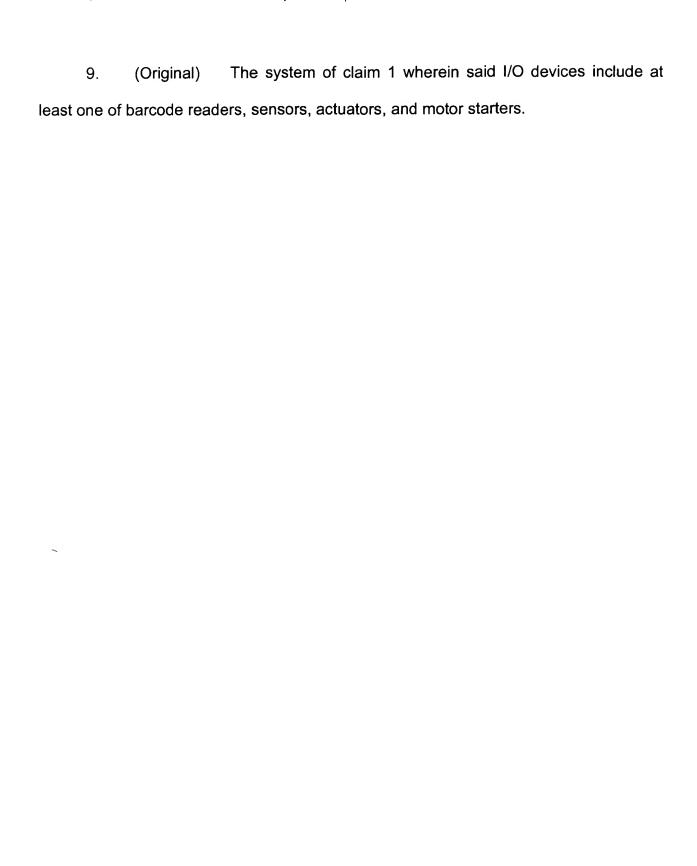
a first network;

a plurality of I/O devices connected to said first network; and

a master computer coupled to said first network and including control software with an object oriented model for defining one of attributes, parameters and operations of said I/O devices,

wherein said master computer adjusts said one of attributes, parameters and operations in order to configure a first I/O device that is connected to said first network by creating a first I/O device object, said master computer subsequently clones properties that include said one of attributes, parameters, and operations of said first I/O device in order to configure a second I/O device that is subsequently connected to said first network by creating a second I/O device object that is a copy of the first I/O device object, and accepts user input to modify at least one of said attributes of the second I/O device object that are different for said second I/O device, and said master computer sends the first and second device objects to the first and second I/O devices on the network, respectively.

2.   (Original)   The system of claim 1 wherein said object oriented model includes a hierarchical class structure with inheritance properties.

3.   (Original)   The system of claim 1 wherein said hierarchical class structure includes a device class.

4.   (Original)   The system of claim 3 wherein said device class includes a plurality of device types.

5.   (Original)   The system of claim 4 wherein said object oriented model includes at least one class level hierarchically below said device class.

6.   (Original)   The system of claim 5 wherein devices instantiated at said at least one class level inherit said one of said attributes, parameters and operations of said at least one class level and a device type of said device class from which said at least one class level depends.

7.   (Original)   The system of claim 4 wherein said device types include at least one of analog and digital devices.

8.   (Original)   The system of claim 1 wherein said control software includes a graphical user interface for interfacing said control software and cloning said I/O devices.

9.   (Original)   The system of claim 1 wherein said I/O devices include at least one of barcode readers, sensors, actuators, and motor starters.

10. (Previously Presented) A system for cloning input/output (I/O) devices connected to a network of an industrial control system, comprising:

a first network;

a second network coupled to said first network;

a first plurality of I/O devices connected to said first network;

a second plurality of I/O devices connected to said second network; and

a master computer coupled to one of said first and second networks and including control software with an object oriented model for defining one of attributes and operations of at least one of said I/O devices on one of said first and second networks,

wherein said master computer adjusts said one of attributes, parameters and operations in order to configure a first I/O device that is connected to one of said first and second networks by creating a first I/O device object, said master computer subsequently clones properties that include said one of attributes, parameters, and operations of said first I/O device in order to configure a second I/O device that is subsequently connected to the other of said first and second networks by creating a second I/O device object that is a copy of the first I/O device object, and accepts user input to modify at least one of said attributes of the second I/O device object that are different for said second I/O device, and said master computer sends the first and second device objects to the first and second I/O devices on the network, respectively.

11. (Original) The system of claim 10 wherein said object oriented model includes a hierarchical class structure with inheritance properties.

12. (Original)   The system of claim 11 wherein said hierarchical class structure includes a device class.

13. (Original)   The system of claim 12 wherein said device class includes a plurality of device types.

14. (Original)   The system of claim 13 wherein said object oriented model includes at least one class level hierarchically below said device class.

15. (Original)   The system of claim 14 wherein devices instantiated at said at least one class level inherit said one of said attributes and operations of said at least one class level and a device type of said device class from which said at least one class level depends.

16. (Original)   The system of claim 13 wherein said device types include at least one of analog and digital devices.

17. (Original)   The system of claim 10 wherein said control software includes a graphical user interface for interfacing said control software and cloning said I/O devices.

18. (Previously Presented)   The system of claim 10 wherein said first and second networks are connected by a gateway.

19. (Original)   The system of claim 18 wherein said first and second networks are different types of networks.

20. (Original)   The system of claim 10 wherein said I/O devices connected to said first and second networks include at least one of barcode readers, sensors, actuators, and motor starters.